FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6129
Siemens Solar Industries

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST 6129. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to the Salmon Creek Wastewater Treatment Plant through the Hazel Dell Sewer District's wastewater collection system. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities that discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D—Response to Comments.

GENERAL INFORMATION	
Applicant	Siemens Solar Industries
Facility Name and Address	Siemens Solar Industries 12016 NE 95th Street, Suite 720 Vancouver, WA 98682
Type of Facility:	Silicon Ingot Manufacturer
Facility Discharge Location	Latitude: 45° 41' 30" N Longitude: 122° 32' 58" W
Treatment Plant Receiving Discharge	Salmon Creek Wastewater Treatment Plant Clark County, Washington
Contact at Facility	Name: Kevin Kuhel Title: Plant Manager Telephone No.: (360) 944-9254 Name: Sergio Vasquez Title: Manager H.S. & E. Telephone No.: (805) 388-6570
Responsible Official	Name: Bob Beisner Title: Facility Manager Address: Siemens Solar Industries 4650 Abhor Lane Camarillo, CA 93012 Telephone No.: (805) 482-6800 ext. 308 FAX No.: (805) 388-6395 Name: Chester Farris Chief Operations Officer (signer of application)

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

Siemens Solar Industries (Siemens) produces silicon ingots. The ingots are used by other facilities for slicing and processing into silicon wafers for eventual use as solar cells in solar panels. The discharge from Siemens is regulated under 40 CFR Part 469 – Electrical and Electronic components Point Source Category, Subpart B – Electronic Crystals Subcategory. The specific limitations of 469.28 – Pretreatment standards for new sources (PSNS) apply to Siemens discharge to the Hazel Dell Sewer District.

HISTORY

The facility was established at the current location, 12016 N.E. 95th Street Suite 720, Vancouver, Washington, in 1990 and expanded in 1995 to double the production capacity.

INDUSTRIAL PROCESSES

Siemens receives raw material in the form of various sized pieces of silicon. The silicon raw material is washed, crushed, placed in a crucible, melted, and grown into single crystals in a vacuum growing chamber. The grown crystals are cut and shaped into ingots using saws and grinders. The shaped ingots are shipped to a Siemens facility in California for use in the manufacture of solar cells. Siemens produces wastewater from: (1) cutting and grinding silicon ingots, (2) cleaning and acid etching silicon raw material, and (3) cooling water blowdown.

Siemens annually uses approximately 600 tons of polysilicon raw material to produce 360 tons of crystal ingots. To produce the ingots Siemens uses approximately 20,000 gallons of nitric, hydrofluoric, and acetic acids per year.

Siemens is in continual production, operating with two worker shifts per day. Siemens employs approximately 15 people per shift.

TREATMENT PROCESSES

Cutting and Grinding Wastewater

Siemens present system for treating the cutting and grinding wastewater has been in operation for approximately one year. This system removes silicon solids resulting from the cutting and grinding processes and consists of chemical coagulation and settling. Siemens adds sodium hypochlorite to control biological growth, increases the pH to approximately 7.8, then adds a coagulant and flocculent to assist particle settling. The wastewater flows from the reactor tank into a laminar plate clarifier. Clarifier effluent is pumped to a recycle tank for use within the facility or for discharge to the sanitary wastewater collection system.

Sludge from the clarifier is dewatered with a filter press. The filtrate returns to the treatment system influent. The solids are removed for landfill disposal.

Raw Material Etching and Cleaning

Siemens also produces wastewater from a chemical etching process to clean recycled silicon prior to growing into new crystals. This material is cleaned using hydrofluoric acid and nitric acid. This cleaning process surface etches the material and removes contaminants, such as iron and grime, from the surface. After the acid wash, the silicon is rinsed and air dried.

The acid wash wastewater, consisting of acid and low pH rinse wastewater, receives treatment in an acid neutralizing system. In the first reaction tank, Siemens adds calcium chloride, to remove fluorine as calcium fluoride, and sodium hydroxide for pH adjustment. A polymer is added in another tank to precipitate and settle calcium fluoride. The calcium fluoride wastestream is dewatered with a filter press. The resulting solid, calcium fluoride, is disposed of in a landfill.

Cooling Tower Blowdown

Siemens uses water to cool the furnaces for growing the silicon crystals. Heat is removed from the water by cooling towers. Siemens adds an algaecide and a suspension agent to the cooling water. To prevent scaling of the heat transfer equipment, a portion of the water must be removed (blowdown) to reduce the dissolved solids concentration of the cooling water. Clean water is added to the cooling system to replace the blowdown. The blowdown, approximately 1000 to 2000 gallons per day, is routed into the recycle tank.

Siemens discharges treated wastewater into the Hazel Dell Sewer District collection system. All wastewater, domestic and other industrial discharges, is collected in the Hazel Dell Sewer District system and receives treatment at the Salmon Creek Wastewater Treatment Plant. The Salmon Creek plant discharges to the Columbia River at approximately River Mile 96.

PERMIT STATUS

The previous permit (temporary) for this facility was issued on October 20, 1993.

An application for a permit was submitted to the Department on May 22, 1996 and was accepted by the Department on September 6, 1996. The Department did not issue a new permit and Siemens again submitted a permit application on June 19, 2000.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on March 16, 2000.

During the history of the previous permit, the Permittee has remained in compliance based on Discharge Monitoring Reports (DMRs) and other reports submitted to the Department and inspections conducted by the Department. Although not reflected on the quarterly DMR submittals, the wastewater discharged by Siemens during 1999 did not always comply with the pH limitations. Samples obtained by the Hazel Dell Sewer District had pH less than the sewer district's local limit and less than the Department's temporary permit. Siemens installed a continuous and automatic pH measuring and adjustment system. Once this process was installed, Siemens has complied with the pH limitations.

The wastewater discharged from Siemens also exceeds the flow limitations in the Department's temporary permit. Siemens has requested flow increases in permit applications. The Hazel Dell Sewer District, in a letter dated September 29, 1999, gave Siemens permission to discharge an average monthly flow of 45,000 gallons per day with a maximum daily flow of 55,000 gallons.

Siemens has also submitted engineering reports for wastewater treatment system upgrades. The Department most recently approved an engineering report to treatment system improvements on July 22, 1999.

WASTEWATER CHARACTERIZATION

The character of the discharge was reported in the permit application and in discharge monitoring reports. According to the past year's discharge monitoring report, the proposed wastewater discharge is characterized for the following parameters:

Table 1: Wastewater Characterization

Parameter	Average
Flow	21,290 gallons per day
Oil & Grease	<5 mg/L
BOD_5[1]	4 mg/L
TSS[2]	6 mg/L
pH	Range of 5.38 to 9.3 standard units

[1]BOD_5 = 5-day Biochemical Oxygen Demand
[2]TSS = Total Suspended Solids

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

The Revised Code of Washington (RCW) 90.48.010 and the Washington Administrative Code (WAC) 173-216-020 and 173-216-110 require the use of all known, available and reasonable methods of prevention, control and treatment (AKART) before any wastes and other materials and substances enter waters of the state or a POTW. AKART is a technology-based standard for the prevention and control of pollution.

For the semiconductor manufacturing industry, EPA effluent limitations for Electrical and Electronic Components Point Source Category, Subpart B, Electronic Crystals Subcategory (40 CFR 469.20) are equivalent to AKART limitations. Technology-based limits are derived from the following EPA effluent limitations: Pretreatment Standards for New Sources (PSNS), 40 CFR 469.28. These limitations have been determined to be technologically and economically achievable for the semiconductor manufacturing industry. The technology-based (AKART) limits specified in 40 CFR 469.28 are listed in Table 2, Technology-based Effluent Limitations:

Table 2: Technology-based Effluent Limitations

Parameter	Monthly Average	Daily Maximum
Total Toxic Organics (TTO)	N/A	1.37 mg/L

TTO is defined for this industry (40 CFR 469.22) as the sum of the concentrations for each of the following toxic organic compounds which is found in the discharge at a concentration greater than ten (10) micrograms per liter (µg/l):

chloroform	ethylbenzene
phenol	pentachlorophenol
carbon tetrachloride	2,4,6 trichlorophenol
dichlorobromomethane	anthracene
1,2 dichloroethane	bis (2-ethylhexyl) phthalate
1,1 dichloroethylene	butyl benzyl phthalate
methylene chloride	1,2 dichlorobenzene
tetrachloroethylene	1,3 dichlorobenzene
toluene	1,4 dichlorobenzene
1,1,1 trichloroethane	1,2 diphenylhydrazine
1,1,2 trichloroethane	di-n-butyl phthalate
trichloroethylene	isophorone
2 chlorophenol	naphthalene
2,4 dichlorophenol	1,2,4 trichlorobenzene
2 nitrophenol	4 nitrophenol

Under 40 CFR 469.22, a certification of proper solvent management may be submitted in lieu of monitoring if the facility has an approved solvent management plan. In order to secure this exemption from regular monthly monitoring for TTO, Siemens must make the request in writing and submit a solvent management plan. Siemens will be required to complete quarterly sampling for TTO for one year before the exemption from regular monitoring will be allowed. The Department must approve the solvent management plan in order for the monitoring exemption to go into effect. After approval of the solvent management plan, the Department may allow Siemens to make the following certification as a signed attachment to the monthly discharge monitoring report (DMR):

> "Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for TTO, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to Ecology."

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). Existing federal categorical limitations for this facility are found in 40 CFR Part 469.28. The following permit limitations are necessary to satisfy the requirement for AKART:

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

To protect the Salmon Creek Wastewater Treatment Plant from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on local limits established by the Hazel Dell Sewer District and codified in ordinance.

Local limits in the Hazel Dell Sewer District Administrative Code (Pretreatment Resolution #1033) prohibit discharges that exceed the following pollutant limitations:

Table 3: Local Limits for the Hazel Dell Sewer District/Salmon Creek POTW

Pollutant	Local Limit
BOD_5	240 mg/L
TSS	300 mg/L
pH	within the range 6.0 to 9.0 standard units
Arsenic	0.1 mg/L
Barium	5.5 mg/L
Beryllium	90 mg/L
Cadmium	0.3 mg/L
Copper	2.2 mg/L
Chromium	1.7 mg/L
Iron	10 mg/L
Lead	0.4 mg/L
Mercury	0.05 mg/L
Nickel	2.1 mg/L
Selenium	0.1 mg/L
Silver	0.1 mg/L
Zinc	2.3 mg/L
Cyanide	0.2 mg/L
Phenols or Cresols	0.6 mg/L
Fats, Oil & Grease	50 mg/L

Source: Hazel Dell Sewer District Pretreatment Resolution No. 854

Pollutant concentrations in the proposed discharge with technology-based controls in place will not cause problems at the receiving POTW such as interference, pass-through or hazardous exposure to POTW workers nor will it result in unacceptable pollutant levels in the POTW's sludge.

COMPARISON OF LIMITATIONS WITH THE EXISTING TEMPORARY PERMIT ISSUED ON OCTOBER 20, 1993

Table 4. Comparison of Existing and Proposed Limits

	Existing Limits	**Proposed Limits**
Average Monthly Flow	23,200 GPD	45,000 GPD
Maximum Daily Flow	34,700 GPD	55,000 GPD
pH	5.5 – 9.0	6.0 – 9.0
Total Suspended Solids	50 mg/L	
Total Toxic Organics		1.37 mg/L

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies consider the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-216-110 and 40 CFR 403.12 (e),(g), and (h)).

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

NON-ROUTINE AND UNANTICIPATED DISCHARGES

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean waste waters but may be contaminated with pollutants. The permit contains an authorization for non-routine and unanticipated discharges. The permit requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The proposed permit requires the Permittee to develop and implement a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for five years.

APPENDICES

APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations that are described in the rest of this fact sheet.

Public notice of application was published on October 10, 2000, and October 15, 2000, in the *Columbian* newspaper to inform the public that an application had been submitted and to invite comment on the issuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on March 23, 2001, in the *Columbian* newspaper to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6280, or by writing to the address listed above.

APPENDIX B—GLOSSARY

Ammonia—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD_5--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity—Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Continuous Monitoring –Uninterrupted, unless otherwise noted in the permit.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater

facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial User—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference— A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and;

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through— A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User--A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;

b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)--

1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;

2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids—That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of

various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C—TECHNICAL CALCULATIONS

APPENDIX D—RESPONSE TO COMMENTS

No comments received.